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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/830,154	SCHWENG, DETLEF	
	Examiner	Art Unit	
	Aklilu k. Woldemariam	2609	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 26 May 2004.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-40 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-40 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 22 April 2004 is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date May 26, 2004.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on Nov 24, 2004 was filed after the mailing date of the same on Nov 24, 2004. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner is considering the information disclosure statement.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 1, 2, 10, 11, 14, 15, 24 and 25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Echerer et al., hereinafter, Echerer, (U.S. Patent number 5, 740, 267) in view of Okuno et al., thereinafter, Okuno (U.S. Patent number 6, 546, 157 B1).

Regarding claims 1, Echerer discloses a **method to zoom a region of interest from a digital image** (see column 4, lines 18) **comprises the following steps (1) define size and location of region of interest as part of source image** (see column 1, lines 66-67, column 5, line 12 and column 8, lines 30-31) **and (6) display zoomed**

region of interest in destination image (see column 4, lines 18, column 9, lines 60-63 and column 10, line 31).

Echerer does not disclose **(2) calculate scale of conversion in x- and y-direction; (3) calculate number of rows of pixels of destination image according to scale of conversion desired in y-direction; (4) calculate number of pixels contained in a row of pixels of destination image according to scale of conversion desired in x-direction; (5) calculate color values of each pixel along the rows of pixels of the destination image by interpolation from nearest row of pixels of source image.**

However, Okuno discloses **(2) calculate scale of conversion in x- and y-direction** (see fig-1-4, column 1, lines 33-48); **(3) calculate number of rows of pixels of destination image according to scale of conversion desired in y-direction** (see fig.1-4, column 1, lines 33-48); **(4) calculate number of pixels contained in a row of pixels of destination image according to scale of conversion desired in x-direction** (see fig.1-4, column 1, lines 33-48); **(5) calculate color values of each pixel along the rows of pixels of the destination image by interpolation from nearest row of pixels of source image** (see fig.12, column 2, lines 29-33 and column 7, lines 57-63).

It would have been obvious to someone of the ordinary skill in the art at the time when the invention was made to use Okuno's calculate scale of conversion in x- and y-direction in Echerer's a method to zoom a region of interest from a digital image

because it will allow to enlarge or reduce an image at an arbitrary ratio by increasing or decreasing the numbers of pixels, [Okuno's, see column 1, lines 25-27].

Regarding claim 2, Okuno discloses **the method of claim 1 wherein a linear interpolation** (see fig.12, column 2, lines 29-33 and column 7, lines 57-63) **method has been used.**

Regarding claim 10, Echerer discloses **the method of claim 1 wherein the region of interest has the shape of a rectangle** (see column 6, lines 55-60).

Regarding claim 11, Echerer discloses **the method of claim 1 wherein the destination image has the shape of a rectangle** (see column 6, lines 55-60).

Regarding claim 14, Echerer discloses **a method to zoom a region of interest from a digital image** (see column 4, line 18) **comprises the following steps: (1) define size and location of region of interest as part of source image** (see column 1, lines 66-67, column 5, line 12 and column 8, lines 30-31) **and (6) display zoomed region of interest in destination image** (see column 4, line 18, column 9, lines 60-63 and column 10, line 31).

Echerer does not disclose **(2) calculate scale of conversion in x-and y-direction; (3) calculate number of columns of pixels of destination image according to scale of conversion desired in x-direction; (4) calculate number of pixels contained in a column of pixels of destination image according to scale of conversion desired in y-direction; (5) calculate color values of columns of pixels of destination image by interpolation from nearest column of pixels of source image.**

However, Okuno discloses **(2) calculate scale of conversion in x-and y-direction** (see fig.1-4, column 1, lines 33-48); **(3) calculate number of columns of pixels of destination image according to scale of conversion desired in x-direction** (see fig.1-4, column 1, lines 33-48); **(4) calculate number of pixels contained in a column of pixels of destination image according to scale of conversion desired in y-direction** (see fig.1-4, column 1, lines 33-48); **(5) calculate color values of columns of pixels of destination image by interpolation from nearest column of pixels of source image** (see fig.12, column 2, lines 29-33 and column 7, lines 57-63).

It would have been obvious to someone of the ordinary skill in the art at the time when the invention was made to use Okuno's calculate scale of conversion in x- and y-direction in Echerer's a method to zoom a region of interest from a digital image because it will allow to enlarge or reduce an image at an arbitrary ratio by increasing or decreasing the numbers of pixels, [Okuno's, see column 1, lines 25-27].

Regarding claim 15, Okuno discloses **the method of claim 14 wherein a linear interpolation** (see fig.12, column 2, lines 29-33 and column 7, lines 57-63) **Method has been used.**

Regarding claim 24, Echerer discloses **the method of claim 14 wherein the region of interest has the shape of a rectangle** (see column 6, lines 55-60).

Regarding claim 25, Echerer discloses **the method of claim 14 wherein the destination image has the shape of a rectangle** (see column 6, lines 55-60).

5. **Claims 3, 4, 8, 9, 13, 16, 17, 21, 22, 26-30, 34, 35 and 37-40** are rejected under 35 U.S.C. 103(a) as being unpatentable over Echerer in view of Okuno as applied to claims 1 and 14 above, and further in view of Harasimiuk (U.S. Publication number 2002/0154123A1).

Regarding claim 3, Echerer and Okuno disclose **zoom a region of interest from a digital image.**

Echerer and Okuno do not disclose **the method of claim 1 wherein the color values of the pixels of the destination image being located between the left side edge of the image and the first pixel of the nearest row of pixels of the region of interest of the source image and the color values of the pixels of the destination image being located between the right side edge of the image and the last pixel of the nearest row of the source image are achieved by replicating the color values of said first, or correspondingly said last, pixel of the nearest row of the source image.**

However, Harasimiuk discloses **the method of claim 1 wherein the color values of the pixels of the destination image being located between the left side edge of the image and the first pixel of the nearest row of pixels of the region of interest of the source image and the color values of the pixels of the destination image being located between the right side edge of the image and the last pixel of the nearest row of the source image are achieved by replicating the color values of the first, or correspondingly the last, pixel of the nearest row of the source**

image (see page 1, paragraph [0012] lines 1-13 and paragraph [0013] lines 1-13, page 6, paragraph [0111], page 11, paragraph [0190] and [0191]).

It would have been obvious to someone of the ordinary skill in the art at the time when the invention was made to use Harasimiuk's the color values of the pixels of the destination image in Echerer's and Okuno's a method to zoom a region of interest from a digital image because it will allow to assess the parameters that define the scaling operation to find the ratio in one or both directions of the source size in number of pixels to the target size in number of pixels, [Haraimiuk's, see page 6, paragraph [0100] lines 1-5].

Regarding claim 4, Echerer and Okuno disclose **zoom a region of interest from a digital image.**

Echerer and Okuno do not disclose **the method of claim 1 wherein the color values of the pixels of the destination image being located between the left side edge of the image and the first pixel of the nearest row of pixels of the region of interest of the source image and the color values of the pixels of the destination image being located between the right side edge of the image and the last pixel of the nearest row of the source image are achieved by interpolating the color values of the first, or correspondingly the last, pixel of the nearest row of the source image with a neighboring pixels outside the region of interest of the source image.**

However, Harasimiuk discloses **the method of claim 1 wherein the color values of the pixels of the destination image being located between the left side**

edge of the image and the first pixel of the nearest row of pixels of the region of interest of the source image and the color values of the pixels of the destination image being located between the right side edge of the image and the last pixel of the nearest row of the source image are achieved by interpolating the color values of the first, or correspondingly the last, pixel of the nearest row of the source image with a neighboring pixels outside the region of interest of the source image(see page 1, paragraph [0012] lines 1-13 and paragraph [0013] lines 1-13, page 6, paragraph [0111], page 11, paragraph [0190] and [0191]).

Regarding claim 8, Harasimiuk discloses **the method of claim 1 wherein the digital image is a video image** (see page 1, paragraph [0004] line 4 and paragraph [0002] line 7).

Regarding claim 9, Harasimiuk discloses **the method of claim 1 wherein the digital image is a still image from a digital camera** (see page 1, paragraph [0004] line 4, i.e., it is obvious that digital camera generates digital images).

Regarding claim 13, Harasimiuk discloses **the method of claim 1 wherein the method invented is implemented using one common software program** (see page 6, paragraph [0094] lines 1-6).

Regarding claim 16, Harasimiuk discloses **he method of claim 14 wherein the color values of the pixels of the destination image being located between the upper side edge of the image and the first pixel of the nearest column of pixels of the source image and the color values of the pixels of the destination image being located between the bottom side edge of the image and the last pixel of the**

nearest column of the source image are achieved by replicating the color values of the first, or correspondingly the last, pixel of the nearest column of the source image (see page 1, paragraph [0012] lines 1-13 and paragraph [0013] lines 1-13, page 6, paragraph [0111], page 11, paragraph [0190] and [0191]).

Regarding claim 17, Harasimiuk discloses **the method of claim 14 wherein the color values of the pixels of the destination image being located between the left side edge of the image and the first pixel of the nearest row of pixels of the region of interest of the source image and the color values of the pixels of the destination image being located between the right side edge of the image and the last pixel of the nearest row of the source image are achieved by interpolating the color values of the first, or correspondingly the last, pixel of the nearest row of the source image with a neighboring pixels outside the region of interest of the source image** (see page 1, paragraph [0012] lines 1-13 and paragraph [0013] lines 1-13, page 6, paragraph [0111], page 11, paragraph [0190] and [0191]).

Regarding claim 21, Harasimiuk discloses **the method of claim 14 wherein the digital image is a video image (**see page 1, paragraph [0001] line 4 and paragraph [0002] line 7).

Regarding claim 22, Harasimiuk discloses **the method of claim 14 wherein the digital image is a still image from a digital camera** (see page 1, paragraph [0004] line 4, i.e., it is obvious digital camera generates digital image).

Regarding claim 26, Harasimiuk discloses **the method of claim 14 wherein the method invented is implemented using one common software program** (see page 6, paragraph [0094] lines 1-6).

Regarding claim 27, Echerer discloses **a method to zoom a region of interest from a digital image** (see column 4, line 18) **comprises the following steps: (1) define size and location of region of interest as part of source image** (see column 1, lines 66-67, column 5, line 12 and column 12, lines 30-31 **and (11) display zoomed region of interest in destination** image (see column 4, line 18, column 9, lines 60-63 and column 10, line 31).

Echerer does not disclose **(2) calculate the scale of conversion of the resolution in x-and y- direction; (3) calculate number of rows of pixels of destination image according to scale of conversion desired in y-direction; (4) calculate number of pixels contained in a row of pixels of destination image according to scale of conversion desired in x-direction; (5) calculate x, y virtual starting point of destination pixel for each frame; (6) calculate virtual location of first destination pixel for new row in x-direction and interpolate new color values of color space of the first destination pixel from nearest source pixels located at nearest row of source pixels in y-direction; (7) calculate virtual position of next destination pixel in x-direction according to scale factor and interpolate new color values of color space used of the next pixel from nearest source pixels located at nearest row of source pixels in y-direction; (8) go to next step (8) if last destination pixel in x-direction has been reached otherwise go to step (6); (9) go**

to step (11) if last row of destination pixels has been reached otherwise go to next step (9); 25 (10) calculate virtual location of next row in y-direction according to scale factor in y-direction and go to step (5).

However, Okuno discloses **(2) calculate the scale of conversion of the resolution in x-and y- direction** (see fig.1-4, column 1, lines 33-48); **(3) calculate number of rows of pixels of destination image according to scale of conversion desired in y-direction** (see fig.1-4, column 1, lines 33-48); **(4) calculate number of pixels contained in a row of pixels of destination image according to scale of conversion desired in x-direction** (see fig.1-4, column 1, lines 33-48).

Echerer and Okuno do not disclose **(5) calculate x, y virtual starting point of destination pixel for each frame; (6) calculate virtual location of first destination pixel for new row in x-direction and interpolate new color values of color space of the first destination pixel from nearest source pixels located at nearest row of source pixels in y-direction; (7) calculate virtual position of next destination pixel in x-direction according to scale factor and interpolate new color values of color space used of the next pixel from nearest source pixels located at nearest row of source pixels in y-direction; (8) go to next step (8) if last destination pixel in x-direction has been reached otherwise go to step (6); (9) go to step (11) if last row of destination pixels has been reached otherwise go to next step (9); 25 (10) calculate virtual location of next row in y-direction according to scale factor in y-direction and go to step (5).**

However, Harasimiuk discloses **(5) calculate x, y virtual starting point of destination pixel for each frame** (see fig.3, page 11, paragraph [0193] lines 1-2); **(6) calculate virtual location of first destination pixel for new row in x-direction and interpolate new color values of color space of the first destination pixel from nearest source pixels located at nearest row of source pixels in y-direction** (see fig.3, page 11, paragraph [0193] lines 1-2 and page 1, paragraph [0012] lines 1-13 and paragraph [0013] lines 1-13, page 6, paragraph [0111], paragraph [0190] and [0191]); **(7) calculate virtual position of next destination pixel in x-direction according to scale factor and interpolate new color values of color space used of the next pixel from nearest source pixels located at nearest row of source pixels in y-direction** (see fig.1-4, column 1, line 33-48 and page 1, paragraph [0012] lines 1-13 and paragraph [0013] lines 1-13, page 6, paragraph [0111], page 11, paragraph [0190] and [0191]); **(8) go to next step (8) if last destination pixel in x-direction has been reached otherwise go to step (6); (9) go to step (11) if last row of destination pixels has been reached otherwise go to next step (9)** (see page 6, paragraph [0094] lines 1-6); **25 (10) calculate virtual location of next row in y-direction according to scale factor in y-direction** (see fig.1-4, column 1, lines 33-48) **and go to step (5).**

It would have been obvious to someone of the ordinary skill in the art at the time when the invention was made to use Harasimiuk's calculate x, y virtual starting point of destination pixel in Echerer's and Okuno's a method to zoom a region of interest from a digital image because it will allow to assess the parameters that define the scaling

operation to find the ratio in one or both directions of the source size in number of pixels to the target size in number of pixels, [Haraimiuk's, see page 6, paragraph [0100] lines 1-5].

Regarding claim 28, Okuno discloses **the method of claim 27 wherein a linear interpolation** (see fig.12, column 12, lines 29-33, and column 7, lines 57-63) **method has been used.**

Regarding claim 29, Harasimiuk discloses **the method of claim 27 wherein the color values of the pixels of the destination image being located between the left side edge of the image and the first pixel of the nearest row of pixels of the source image and the color values of the pixels of the destination image being located between the right side edge of the image and the last pixel of the nearest row of the source image are achieved by replicating the color values of the first, or correspondingly the last, pixel of the nearest row of the source image** (see page 1, paragraph [0012] lines 1-13 and paragraph [0013] lines 1-13, page 6, paragraph [0111], paragraph [0190] and [0191]).

Regarding claim 30, Harasimiuk discloses **the method of claim 27 wherein the color values of the pixels of the destination image being located between the left side edge of the image and the first pixel of the nearest row of pixels of the region of interest of the source image and the color values of the pixels of the destination image being located between the right side edge of the image and the last pixel of the nearest row of the source image are achieved by interpolating the color values of the first, or correspondingly the last, pixel of the nearest row of**

the source image with a neighboring pixels outside the region of interest of the source image (see page 1, paragraph [0012] lines 1-13 and paragraph [0013] lines 1-13, page 6, paragraph [0111], page 11, paragraph [0190] and [0191]).

Regarding claim 34, Harasimiuk discloses **the method of claim 27 wherein the digital image is a video image** (see page 1, paragraph [004] line 4 and paragraph [0002] line 7).

Regarding claim 35, Harasimiuk discloses **the method of claim 27 wherein the digital image is a still image from a digital camera** (see page 1, paragraph [0004] line 4, i.e., it is obvious that digital camera generates digital image).

Regarding claim 37, Echerer discloses **the method of claim 27 wherein the region of interest has the shape of a rectangle** (see column 6, lines 55-60).

Regarding claim 38, Echerer discloses **the method of claim 27 wherein the destination image has the shape of a rectangle** (see column 6, lines 55-60).

Regarding claim 39, Harasimiuk discloses **the method of claim 27 wherein the method invented is implemented using one common software program** (see page 6, paragraph [0094] lines 1-6).

Regarding claim 40, Echerer discloses **a method to zoom a region of interest from a digital image** (see column 4, line 18) **comprises the following steps: (1) define size and location of region of interest as part of source image** (see column 1, lines 66-67, column 5, line 12 and column 8, lines 30-31) **and (11) display zoomed region of interest in destination image** (see column 4, line 18, column 9, lines 60-63 and column 10, line 31).

Echerer does not disclose **(2) calculate the scale of decimation in x-and y-direction; (3) calculate number of columns of pixels of destination image according to scale of conversion desired in x-direction; (4) calculate number of pixels contained in a column of pixels of destination image according to scale of conversion desired in y-direction; (5) calculate x, y virtual starting point of destination pixel for each frame; (6) calculate virtual location of first destination pixel for new column in y-direction and interpolate new color values of color space of the first destination pixel from nearest source pixels located at nearest column of source pixels in x-direction; (7) calculate virtual position of next destination pixel in y-direction according to scale factor and interpolate new color values of color space used of said next pixel from nearest source pixels located at nearest column of source pixels in x-direction; (8) go to next step (8) if last destination pixel in y-direction has been reached otherwise go to step (6); (9) go to step (11) if last column of destination pixels has been reached otherwise go to next step (9); (10) calculate virtual location of next column in x-direction according to scale factor in x-direction and go to step (5).**

However, Okuno discloses **(2) calculate the scale of decimation in x-and y-direction** (see fig.1-4, column 1, lines 33-48); **(3) calculate number of columns of pixels of destination image according to scale of conversion desired in x-direction** (see fig.1-4, column 1, lines 33-48); **(4) calculate number of pixels contained in a column of pixels of destination image according to scale of conversion desired in y-direction** (see fig.1-4, column 1, lines 33-48).

Echerer and Okuno do not disclose **(5) calculate x, y virtual starting point of destination pixel for each frame; (6) calculate virtual location of first destination pixel for new column in y-direction and interpolate new color values of color space of the first destination pixel from nearest source pixels located at nearest column of source pixels in x-direction; (7) calculate virtual position of next destination pixel in y-direction according to scale factor and interpolate new color values of color space used of said next pixel from nearest source pixels located at nearest column of source pixels in x-direction; (8) go to next step (8) if last destination pixel in y-direction has been reached otherwise go to step (6); (9) go to step (11) if last column of destination pixels has been reached otherwise go to next step (9); (10) calculate virtual location of next column in x-direction according to scale factor in x-direction and go to step (5).**

However, Harasimiuk discloses **(5) calculate x, y virtual starting point of destination pixel for each frame** (see fig.3, page 11, paragraph [0193] lines 1-2); **(6) calculate virtual location of first destination pixel for new column in y-direction and interpolate new color values of color space of the first destination pixel from nearest source pixels located at nearest column of source pixels in x-direction** (see page 1, paragraph [0012] lines 1-13 and paragraph [0013] lines 1-13, page 6, paragraph [0111], page 11, paragraph [0190] and [0191]) **and ; (7) calculate virtual position of next destination pixel in y-direction according to scale factor and interpolate new color values of color space used of the next pixel from nearest source pixels located at nearest column of source pixels in x-direction** (see page

1, paragraph [0012] lines 1-13 and paragraph [0013] lines 1-13, page 6, paragraph [0111], page 11, paragraph [0190] and [0191]); **(8) go to next step (8) if last destination pixel in y-direction has been reached otherwise go to step (6)** (see page 6, paragraph [0094] lines 1-6); **(9) go to step (11) if last column of destination pixels has been reached otherwise go to next step (9); (10) calculate virtual location of next column in x-direction according to scale factor in x-direction** (see fig. 3, page 11, paragraph [0193] lines 1-2) **and go to step (5).**

It would have been obvious to someone of the ordinary skill in the art at the time when the invention was made to use Harasimiuk's calculate x, y virtual starting point of destination pixel in Echerer's and Okuno's a method to zoom a region of interest from a digital image because it will allow to assess the parameters that define the scaling operation to find the ratio in one or both directions of the source size in number of pixels to the target size in number of pixels, [Harasimiuk's, see page 6, paragraph [0100] lines 1-5].

6. **Claims 5-7, 12, 18-20, 23 and 31-33** are rejected under 35 U.S.C. 103(a) as being unpatentable over Echerer in view of Okuno as applied to claims 1, 14, 27 and 40 above, and further in view of Zheng (U.S. Patent number 6, 453, 074 B1).

Regarding claim 5, Zheng discloses **the method of claim 1 wherein the digital image is a color image using any color space** (see column 7, lines 26-27).

Regarding claim 6, Zheng discloses **the method of claim 5 wherein the color space is a R-G-B color space** (see column 7, lines 26-27).

Regarding claim 7, Zheng discloses **the method of claim 5 wherein the color space is an YCbCr color space** (see column 7, lines 26-27, i.e., YcbCr referred as to L*a*b).

Regarding claim 12, Zheng discloses **the method of claim 1 wherein the method invented is used to convert the resolution of the region of interest in any direction** (see item S812, abstract, line 1 and column 4, lines 39-40).

Regarding claim 18, Zheng discloses **the method of claim 14 wherein the digital image is a color image using any color space** (see column 7, lines 26-27).

Regarding claim 19, Zheng discloses **the method of claim 18 wherein the color space is a R-G-B color space** (see column 7, lines 26-27).

Regarding claim 20, Zheng discloses **the method of claim 18 wherein the color space is an YCbCr color space** (see column 7, lines 26-27, i.e., YcbCr referred as to L*a*b).

Regarding claim 23, Zheng discloses **the method of claim 14 wherein the method invented is used to convert the resolution of the region of interest in any direction** (see item S182, abstract, line 1 and column 4, lines 39-40).

Regarding claim 31, Zheng discloses **the method of claim 7 wherein the digital image is a color image using any color space** (see column 7, lines 26-27).

Regarding claim 32, Zheng discloses **the method of claim 31 wherein the color space is a R-G-B color space** (see column 7, lines 26-27).

Regarding claim 33, Zheng discloses **the method of claim 31 wherein the color space is an YCbCr color space** (see column 7, lines 26-27, i.e., YcrCb referred as to L*a*b).

7. **Claim 36** is rejected under 35 U.S.C. 103(a) as being unpatentable over Echerer in view of Okuno and further in view of Harasimiuk as applied to claim 1, 14, 27 and 40 above, and further in view of Zheng.

Regarding claim 36, Echerer, Okuno and Harasimiuk disclose **a method to zoom a region of interest from a digital image** (see column 4, line 18).

Echerer, Okuno and Harasimiuk do not disclose **convert the resolution of the region of interest in any direction.**

However, Zheng discloses **the method of claim 27 wherein the method invented is used to convert the resolution of the region of interest in any direction** (see item S182, abstract, line 1 and column 4, lines 39-40).

It would have been obvious to someone of the ordinary skill in the art at the time when the invention was made to use Zheng's convert the resolution of the region of interest in any direction in Echerer's, Okuno's and Harasimiuk's a method to zoom a region of interest from a digital image because it will allow to transform the color image into a color space, [Zheng's, see column 2, lines 42-46].

Double Patenting

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct

from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. **Claims 1, 3, 6, 7, 8,9, 14, 15, 16, 19, 20, 21, 27, 29, 32,33, 34, 35, and 40** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims **1, 2, 3, 4, 5, 6, 7, 12, 13, 14, 15, 16, 17, 18, 23, 25, 26, 27, 28,29, and 34** of copending Application No.10/830, 329. Although the conflicting claims are not identical, they are not patentably distinct from each other because, for example, claim 1 in provision application is functional equivalent in claim 1 in the copending Application No. 10/830, 329:

Claim1 recites: " Zoom a region of interest from a digital image ", claim 1 of copending application recited: " Convert the resolution of a digital color images ", but in the body of claims they follow same steps such as (2) calculate scale of conversion in x- and y-direction; (3) calculate number of rows of pixels of destination image according to scale of conversion desired in y-direction; (4) calculate number of pixels contained in a row of pixels of destination image according to scale of conversion desired in x-direction and (5) calculate color values of each pixel along the rows of

pixels of the destination image by interpolation from nearest row of pixels of source image.

Claim 12 recites: " Zoom a region of interest from a digital image ", claim 14 of copending application recited: " Convert the resolution of a digital color images ", but in the body of claims they follow same steps such as (2) calculate scale of conversion in x- and y-direction; (3) calculate number of rows of pixels of destination image according to scale of conversion desired in y-direction; (4) calculate number of pixels contained in a row of pixels of destination image according to scale of conversion desired in x-direction and (5) calculate color values of each pixel along the rows of pixels of the destination image by interpolation from nearest row of pixels of source image.

Claim 23 recites: " Zoom a region of interest from a digital image ", claim 27 of copending application recited: " Convert the resolution of a digital color images ", but in the body of claims they follow same steps such as (2) calculate the scale of conversion of the resolution in x-and y- direction; (3) calculate number of rows of pixels of destination image according to scale of conversion desired in y-direction; (4) calculate number of pixels contained in a row of pixels of destination image according to scale of conversion desired in x-direction; (5) calculate x, y virtual starting point of destination pixel for each frame; (6) calculate virtual location of first destination pixel for new row in x-direction and interpolate new color values of color space of said first destination pixel from nearest source pixels located at nearest row of source pixels in y-direction; (7) calculate virtual position of next destination pixel in x-direction

according to scale factor and interpolate new color values of color space us~ of said next pixel from nearest source pixels located at nearest row of source pixels in y-direction; (8) go to next step (8) if last destination pixel in x-direction has been reached otherwise go to step (6); (9) go to step (11) if last row of destination pixels has been reached otherwise go to next step (9) and (10) calculate virtual location of next row in y-direction according to scale factor in y-direction and go to step (5).

Claim 34 recites: " Zoom a region of interest from a digital image ", claim 40 of copending application recited: " Convert the resolution of a digital color images ", but in the body of claims they follow same steps such as (2) calculate the scale of decimation in x-and y-direction; (3) calculate number of columns of pixels of destination image according to scale of conversion desired in x-direction; (4) calculate number of pixels contained in a column of pixels of destination image according to scale of conversion desired in y-direction; (5) calculate x, y virtual starting point of destination pixel for each frame; (6) calculate virtual location of first destination pixel for new column in y-direction and interpolate new color values of color space of said first destination pixel from nearest source pixels located at nearest column of source pixels in x-direction; (7) calculate virtual position of next destination pixel in y-direction according to scale factor and interpolate new color values of color space used of said next pixel from nearest source pixels located at nearest column of source pixels in x-direction; (8) go to next step (8) if last destination pixel in y-direction has been reached otherwise go to step (6); (9) go to step (11) if last column of destination pixels has been reached

otherwise go to next step (9) and (10) calculate virtual location of next column in x-direction according to scale factor in x-direction and go to step (5).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aklilu k. Woldemariam whose telephone number is 571-270-3247. The examiner can normally be reached on Monday-Thursday 6:30 a.m-5:00 p.m EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Eisen can be reached on 571-272-7687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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08/14/2007